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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application: Hoffmann, Shlomo

Serial No.: 09/820,146

Filed: 03/28/2001

Group Art Unit: 2634

Examiner: Ha, Dac V.

For: INTERMODULATION DISTORTION IDENTIFICATION AND  
QUANTIZATION CIRCUIT FOR A LINEAR AMPLIFIER  
SYSTEM

REQUEST FOR RECONSIDERATION

Mail Stop AF  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This paper is responsive to the Office Action mailed on April 21, 2005.

Applicant respectfully requests reconsideration of this application. The combination proposed by the Examiner cannot be made. There is no *prima facie* case of obviousness. When there is no benefit to making a combination, there is no legal motivation for making it and no *prima facie* case of obviousness. In this instance, there would be no benefit to adding the HPA 18 of the *Carney, et al.* reference to the *Ghanadan, et al. reference*. If one made that substitution, there would simply be a different amplifier. It has no impact on the operation of the arrangement in the *Ghanadan, et al.* reference in a manner that would provide any benefit. Therefore, there is no motivation for making the substitution and the combination cannot be made.

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In the *Ghanadan, et al.* reference, the technique for dealing with intermodulation distortion is to add a pilot signal to a signal of interest. Then the pilot signal can be detected for identifying intermodulation distortion. The arrangement in *Ghanadan, et al.* then adds an inverse of the intermodulation distortion to the signal to eliminate the intermodulation distortion.

The subject matter of *Ghanadan's* Figure 4 is for correcting an "error" signal that corresponds to a difference between the inverse that is added to the signal in an attempt to eliminate the intermodulation distortion. The subject matter in Figure 4 modifies a phase or gain based upon the error which corresponds to a failure to eliminate the distortion (i.e., the difference between the actual intermodulation distortion and the additional component added that is supposed to eliminate or cancel the intermodulation distortion).

If one were to add the HPA 18 from *Carney, et al.* to *Ghanadan, et al.*, the processing would be the same and there only would be a different amplifier. Simply putting in a different amplifier does not have any benefit or change the results provided by *Ghanadan, et al.* in any way and, therefore, there is no benefit to making the combination.

Further, even if the combination could be made it is not the same as what is claimed. Neither *Ghanadan, et al.* nor *Carney, et al.* detect a sampled signal, which is the output of a multiple carrier linear amplifier, at frequency increments and digitizes or quantizes and nulls the intermodulation distortion. *Ghanadan, et al.* never digitizes or quantizes the intermodulation distortion. At best, the arrangement in Figure 4 of *Ghanadan, et al.* digitizes information regarding the "error" signal of that reference. Even if one adds the HPA 18 from *Carney, et al.*, that does not change the approach in

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*Ghanadan, et al.* in a manner that makes it consistent with Applicant's claimed invention. There is nothing within either reference that uses frequency increments in a manner consistent with Applicant's claims.

The further addition of *Myer* in the rejection of claims 8-22, 24 and 25 does nothing remedy the defect in the base combination between *Ghanadan, et al.* and *Carney, et al.* The combination cannot be made and there is no *prima facie* case of obviousness.

This case is in condition for allowance.

Respectfully submitted,

CARLSON, GASKEY & OLDS

By: 

David J. Gaskey  
Registration No. 37,139  
400 W. Maple Rd., Ste. 350  
Birmingham, MI 48009  
(248) 988-8360

Dated: June 17, 2005

**CERTIFICATE OF FACSIMILE**

I hereby certify that this Request for Reconsideration relative to Application Serial No. 09/820,146, is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 872-9306) on 6-17-05.

  
Theresa M. Palmateer

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